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EXAMINER	
LONG, ROBERT FRANKLIN	
ART UNIT	PAPER NUMBER
3764	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/581,314	LIMMA ET AL.	
	Examiner	Art Unit	
	Robert F. Long	3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09/26/08* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 09/26/08 has been entered. Claims 1-26 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mault et al. (US 6790178 B1) in view of Seiple et al. (US 6032108 A)**.

Regarding claim 10, Mault et al. discloses a measurement device, ***Personal Digital Assistant (PDA) Physiological Monitoring device,*** *(column 2, lines 11-27),* configured to measure and transmit sports activity information, ***Feedback can be transferred,*** *via remote communication, (column 7, lines 13-26), additional functionality/display capability* ***via wire or wireless communication****, (column 5, lines 4-67) and monitor tissue hydration during a exercise program or* ***sporting event and***

calculations *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).*

wherein the measurement device comprises: a processor (28); ***Combination of computing devices*** *receives record,* ***process, compute,*** *display, and/or* ***transmits signals*** *(column 4, lines 15-67),* a plurality of measuring elements (214) configured to measure a plurality of quantities relating to a sports activity; a memory (24) configured to store measurement data provided by the measuring elements (214); ***connections to the sensors*** *forming part of the physiological monitor, and may include electronics that act as an* ***interface between the sensors*** *of the physiological monitor and the PDA, (column 4, lines 40-56) and the monitor may be* ***placed on the body anywhere to measure*** *a physiological parameter via accessory clips or other means, (column 5, lines 4-67) and* ***measuring*** *calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27),* configured to transmit sports activity information, to a receiving device to at least one receiving device via a local communication link during the sports activity according to a communication protocol, ***Feedback can be transferred to a health professional or health management advisor****, via remote communication, (column 7, lines 13-26) and monitor tissue hydration during an exercise program or* ***sporting event,*** *and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67)* and Mault et al.

teaches any embodiment can be used with the other *any of the alternatives discussed with respect to any of the embodiments of the present invention may be used with any other embodiments, as appropriate, (column 24, lines 53-67)*.

But fails to teach the methodology of selecting for transmitting the sport activity information/feedback to the receiving device of the sport or sport activity in question.

Mault et al. does teach using the device with sports, keeping fitness logs/tracking, and teaches any embodiment can be used with the other *any of the alternatives discussed with respect to any of the embodiments of the present invention may be used with any other embodiments, as appropriate, (column 24, lines 53-67). Mault et al. also teaches* ***measuring*** *calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27).* Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with sport analysis feedback *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Since Seiple et al. teaches a similar sport feedback analysis with the specific sport in question and Mault et al. discloses a Personal Digital Workout assistant (PDA), with feedback data system that monitors and tracks fitness/sports an exercise artisan could use theses similarities discussed here to combine them for an overall more

comprehensive feedback system with respect to sports, exercise fitness routines, and/or health management. The similar feedback data taught here are working in conjunction with exercise equipment, sports, and health management which enhances all feedback capability and each of the prior arts teach other feedback capability as not discussed. Together this feedback data includes range of time periods, sport analysis, cumulative exercise data, and date range and the parameter data is at least one exercise duration period, exercise day, and a date range which includes years, days, weeks, and months and further comprising an exercise journal and a method of storing exercise parameters from a plurality of users from multiple exercise sessions for each of the plurality of users and displaying the exercise parameters. Also, Mault et. al. discloses that *any of the alternatives discussed with respect to any of the embodiments of the present invention may be used with any other embodiments, as appropriate, (column 24, lines 53-67).*

Thus, it would have been obvious for an exercise artisan to add the different types or selection of sport or sports activities into the fitness journals or sport analysis of workout sessions taught by Mault et al for a more comprehensive exercise feedback data system. Both of these devices ***could be connected together to form a network system*** exercise/sport feedback system. Both prior arts could even include further training in regards to repetition, goal setting/power value, and automatically determine performance data based on a target power value, performance (repetitions performed) and/or modifying routine based on data/repetitions performed. ***Both devices alone*** are capable of storing data, monitoring exercise via sensors, transferring the data to other electronic devices and are programmable to implement a variety of desired feedback

sport regimens an exercise artisan could incorporate. Further, each of the prior arts discussed have a ***microprocessor capable of meeting the limitations discussed and also teach other overlapping similar features of feedback analysis***. Also, the market place reflects the reality that feedback wireless systems are common place and are being implemented into exercise equipment both internally and externally with sensors and detectors. Hence, all of the parts and technique of using them are known in the market place/exercise arena, and the only difference is the combination of the "old elements/common feedback data" into a single automated personal exercise regimen or a personal digital device. Therefore, it would have been obvious to the exercise artisan to implement/modify or use any of the common portable computing devices capabilities of PDA's, cell phones, and etc. in order to have a more comprehensive feedback data analysis exercise regimen device and methodology.

Also, where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, *(as shown here),* a prima facie case of either anticipation or obviousness has been established, *In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977*). Moreover, it has been held to combine teachings is obvious, "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... The idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980).*

Regarding claim 11, Mault et al. in view of Seiple et al. teaches the plurality of measuring elements (214) comprise at least one of the following: a GPS receiver (216); *Motion is measured using pedometers such as piezoelectric sensors or pendulums and acceleration via an accelerometer, (column 11, lines 1-67) and/or* ***GPS signals*** *(column 12, lines 22-27),* a thermometer (200); ***body temperature****, (column 6, lines 15-30).*

But fails to disclose a barometer (202); and at least one pulse coil (22) configured to measure heart rate.

Mault et al. does teach *monitors for* ***measuring*** *calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27),* ***pulse oximeter for cardiac features****, ultrasonic sensor for measuring*

respiration, *pregnancy-related factors, bone density, or posture, food, body weight* ***and others,*** *(column 6, lines 15-30).*

Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with GPS sensors and a barometer that could be the other measurements taught in Mault et al., *the SPC includes an atmospheric pressure sensor, which may also be referred to as a* ***barometer or altimeter.*** *The altimeter is included to obtain more accurate determinations of the change in altitude of the user than can be achieved by* ***processing GPS data*** *alone in the SPC, (column 9, lines 1-33).*

Thus, since Mault et al. does teach using the device with sports, and a pulse oximeter, keeping fitness logs/tracking, and teaches any embodiment can be used with the other *any of the alternatives discussed with respect to any of the embodiments of the present invention may be used with any other embodiments, as appropriate, (column 24, lines 53-67)*, and Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with sport analysis feedback *Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13) and the SPC includes an atmospheric pressure sensor, which may also be referred to as a* ***barometer or altimeter.*** *The altimeter is included to obtain more accurate determinations of the change in altitude of the user than can be achieved by* ***processing GPS data*** *alone in the SPC, (column 9, lines 1-33),* it would have been obvious for an exercise artisan to add the barometer to Mault et al.'s, as taught by Seiple et al., and a pulse coil in place of Mault et al.'s pulse oximeter into fitness/sport tracking monitoring device for a more comprehensive and interactive

sport feedback device. Further, each of the prior arts discussed have a ***microprocessor capable of meeting these limitations discussed and also teach other overlapping similar feedback analysis methodologies***. Also, the market place reflects the reality that feedback wireless systems are common place and are being implemented into exercise equipment and sport activities both internally and externally with sensors and detectors for various interactive training/feedback regimens.

Regarding claim 12, Mault et al. in view of Seiple et al. teaches the processor (28) is configured to calculate at least one additional piece of sports activity information based on the measured sports activity information; and the transmitter (26) is configured to transmit the calculated sports activity information via a communication link, *Feedback can be transferred to a* ***health professional or health management advisor****, via remote communication, (column 7, lines 13-26). Feedback of the user may be stored into an exercise log or for an overall fitness program, (column 12, lines 15-30). The device can be used to monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).* ***Combination of computing devices*** *receives record, process, compute, display, and/or transmits signals, (column 4, lines 15-67).* Seiple et al. also teaches *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches*

the selection of sports, Post event analysis software specific to ***particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 13, Mault et al. in view of Seiple et al. teaches a receiving device configured to receive sports activity information from a measurement device, ***transferred*** *to a* ***health professional or health management advisor****, via* ***remote communication,*** *(column 7, lines 13-26) and monitor tissue hydration during a exercise program or* ***sporting event,*** *(column 16, lines 49-67),* wherein the receiving device comprises: a receiver (208) configured to receive, ***Combination of computing devices*** *receives record, process, compute, display, and/or transmits signals. Devices can be any form* ***including portable/nonportable*** *computers/PDA's. Portable computers can be* ***any device with onboard computing capability*** *like cell phones, electronic books, pagers, watches, organizers,* ***wearable*** *computing devices – jewelry, buttons, and eyeglasses. The physiological monitor can interconnect with a PDA with a variety of* ***plug in modules*** *with sensors, (column 4, lines 15-67),* during a sports activity, a transmission from the measurement device via a local communication link, *variety of* ***plug in modules*** *with sensors, (column 4, lines 15-67) and Feedback can be transferred to a* ***health professional or health management advisor****, via remote communication, (column 7, lines 13-26),* wherein the transmission includes sports activity information measured with the measurement device; *monitor tissue hydration during a exercise program or* ***sporting event,*** *(column 16, lines 49-67),* a memory (206) configured to store at least one definition, *health management software* ***setup a variety of fitness plans and track to adherence to the plans*** *such as* ***walking or running,***

(column 6, lines 62-67) and ***sporting event,*** *(column 16, lines 49-67),* ***Downloading capability*** *can be from computer chips, sensors,* ***memory,*** *and wire or wireless communication hardware and sensing hardware, (column 6, lines 1-14).*

But fails to disclose a processor (210) configured to select the predefined set of pieces of sports activity information from the received sports activity information based on the at least one definition which is defined based on the sport in question, stored on the memory (206); and at least one feedback device (212) configured to provide at least one individual with feedback on a user interface display based on the selected sports activity information.

Mault et al. *does teach the device can be used to monitor tissue hydration during a exercise program or* ***sporting event,*** *(column 16, lines 49-67), feedback of the user may be stored into an* ***exercise log or for an overall fitness program,*** *(column 12, lines 15-30).* Mault also teaches a ***variety of memory modules*** *which may be used (column 9, lines 11-32) and an accessory slot for* ***memory modules****, (column 2, lines 45-67, column 4, lines 35-40).* Seiple et al. also teaches a similar sport analysis feedback device *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software specific to* ***particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 14, Mault et al. in view of Seiple et al. teaches wherein the receiving device further comprises an output to which at least one feedback device

(212) can be connected, ***slots 48 and 50 acts a female connectors and the memory module 46 acts as a male connector***. *As will be clear to those of skill in the art, there are a* ***variety of memory modules*** *which may be used with this application. Some are typically known as flash memory cards and include CompactFlash, SmartMedia, MultiMediaCard, and MemoryStick.TM.. These memory modules may be non-volatile memory or battery-supported volatile memory and include electrical contacts designed to mate with or abut electrical contacts in the slots 48 and 50. Alternatively, inductive or other wireless interconnects between the memory module 46 and the PDA 44 or calorimeter 42 may be provided. Other memory module types include* ***magnetic memory, optical memory, and solid state memory.*** *The memory module 46 may also include additional capabilities such as on-board processing or storage, or calibration or other data, (column 9, lines 11-32).*

Regarding claim 15, Mault et al. in view of Seiple et al. teaches wherein the at least one feedback device (212) is configured to provide at least one individual with at least one sports activity indicator based on the selected sports activity information, *to monitor tissue hydration during a exercise program or* ***sporting event,*** *(column 16, lines 49-67), feedback of the user may be stored into an* ***exercise log or for an overall fitness program,*** *(column 12, lines 15-30),* and ***wearable*** *computing devices, (column 4, lines 15-67).* Seiple et al. also teaches a similar sport analysis feedback device *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event*

analysis software specific to ***particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 16, Mault et al. in view of Seiple et al. teaches wherein the processor (210) is configured to calculate at least one additional piece of sports activity information based on the at least one selected sports activity information, and the at least one feedback device (212) is configured to provide the at least one individual with the calculated at least one sports activity indicator, ***any device with onboard computing capability*** *like cell phones, monitor can interconnect with a PDA with a variety of plug in modules with sensors. An identification code can be used for a user, bard code scanning for interconnection and data retrieval, (column 4, lines 15-67). The device can be used to monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).* Seiple et al. also teaches a similar sport analysis feedback device *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software specific to* ***particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 17, Mault et al. in view of Seiple et al. teaches at least one feedback device (212) is configured to present the at least one sports activity indicator to the at least one individual as at least one of a graphical form and voice signals.

*Monitor module may **display** instructions via **voice recognition/voice recording/voice commands** and the monitor may be **placed on the body anywhere to measure** a physiological parameter via accessory clips or other means, (column 5, lines 4-67). A **graphical display** of information can be implemented, (column 8, lines 23-31) and **connections to the sensors** forming part of the physiological monitor, and may include electronics that act as an **interface between the sensors** of the physiological monitor and the PDA, (column 4, lines 40-56).*

Regarding claim 18, Mault et al. in view of Seiple et al. teaches at least one feedback device (212) comprises at least one of a display, a speaker and an earpiece, *Monitor module may **display** instructions via **voice recognition**/voice recording/voice commands and provide **feedback and results**. A **graphical display** of information can be implemented, (column 8, lines 23-31). Mault also discusses combinations of feed back with **headphones, music** can implemented into the pedometer, time keeping, headphones, and can even be attached to the crank arm of a bicycle, (column 13, 15-67). **Microphone, headphone jack for headphones,** (column 13, lines 61-67) and variety of plug-in modules, (column 4, lines 44-47/lines 60-67, column 5, lines 51-56) and (column 4, lines 20-25/lines36-37, column 5, lines 8-12 and column 5, lines 50-53, and column 7, lines 1-26, figures 11-12) Mault also teaches **Audio-video feedback** can be implemented as well, (column 18, lines 22-28). **monitor along with sounds or video, (**column 18, liens 25-29).*

Regarding claim 19, Mault et al. in view of Seiple et al. teaches system of transmitting measured sports activity information and providing at least one individual

with feedback based on the measured sports activity information, *monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67)* wherein the system comprises: a measurement device (20) comprising a first processor (28), a plurality of measuring elements (214), ***placed on the body anywhere to measure*** a physiological parameter *(column 5, lines 4-67) and health management software* ***setup a variety of fitness plans and track to adherence to the plans*** *such as* ***walking or running,*** *(column 6, lines 62-67)* configured to measure a plurality of quantities ***additional functionality/display capability via wire or wireless communication*** and the *monitor may be* ***placed on the body anywhere to measure*** *a physiological parameter (column 5, lines 4-67)* relating to a sports activity, a first memory (24) configured to store measurement data provided by the measuring elements (214), and a transmitter (26) configured to transmit sports activity information during the sports activity to at least one receiving device via a local communication link according to a communication protocol; and a receiving device (204) comprising a receiver (208) configured to receive a transmission from the measurement device during the sports activity via a local communication link, wherein the transmission includes sports activity information measured with the measurement device (20), a second memory (206) configured to store at least one definition based on which a predefined set of pieces of sports activity information is selected from the received sports activity information, and a second processor (210) configured to select the

predefined set of pieces of sports activity information from the received sports activity information based on the at least one definition, which is defined based on the sport in question, stored on the second memory (206), and at least one feedback device (212) configured to provide the at least one individual with feedback on a user interface display based on the selected sports activity information, *a* ***variety of memory modules*** *which may be used with this application. Some are typically known as flash memory cards and include CompactFlash, SmartMedia, MultiMediaCard, and MemoryStick.TM.. These memory modules may be non-volatile memory or battery-supported volatile memory and include electrical contacts designed to mate with or abut electrical contacts in the slots 48 and 50. Alternatively, inductive or other wireless interconnects between the memory module 46 and the PDA 44 or calorimeter 42 may be provided. Other memory module types include* ***magnetic memory, optical memory, and solid state memory.*** *The memory module 46 may also include additional capabilities such as on-board processing or storage, or calibration or other data*, *(column 9, lines 11-32)* ***Combination of computing devices*** *receives record,* ***process, compute,*** *display, and/or transmits signals. Devices can be any form* ***including portable/nonportable*** *computers/PDA's. Portable computers can be* ***any device with onboard computing capability*** *like cell phones, electronic books, pagers, watches, organizers,* ***wearable*** *computing devices – jewelry, buttons, and eyeglasses. The physiological monitor can interconnect with a PDA with a variety of plug in modules with sensors. An identification code can be used for a user, bard code scanning for interconnection and data retrieval, (column 4, lines 15-67) and* ***measuring***

calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27). Mault also teaches that monitoring may be in real-time, use speakers, and transmitted to a physician's computer, and a website using a communication network. Audio-video can be implemented as well. (column 18, lines 22-28) and monitor can interconnect with a PDA with a ***variety of plug in modules*** *with sensors, (column 4, lines 15-67),*

Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with GPS sensors and a barometer that could be the other measurements taught in Mault et al., *the SPC includes an atmospheric pressure sensor, which may also be referred to as a* ***barometer or altimeter.*** *The altimeter is included to obtain more accurate determinations of the change in altitude of the user than can be achieved by* ***processing GPS data*** *alone in the SPC, (column 9, lines 1-33).* Seiple et al. also teaches sport analysis feedback *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 20, Mault et al. in view of Seiple et al. teaches the plurality of measuring elements (214) comprises comprise at least one of the following: a GPS receiver (216);); *Motion is measured using pedometers such as piezoelectric sensors or pendulums and acceleration via an accelerometer, (column 11, lines 1-67) and/or*

GPS signals *(column 12, lines 22-27),* a thermometer (200); ***body temperature,*** *(column 6, lines 15-30).*

But fails to disclose a barometer (202); and at least one pulse coil (22) configured to measure heart rate.

Mault et al. does teach *monitors for* ***measuring*** *calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27),* ***pulse oximeter for cardiac features****, ultrasonic sensor for measuring* ***respiration,*** *pregnancy-related factors, bone density, or posture, food, body weight* ***and others,*** *(column 6, lines 15-30).*

Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with GPS sensors and a barometer that could be the other measurements taught in Mault et al., *the SPC includes an atmospheric pressure sensor, which may also be referred to as a* ***barometer or altimeter.*** *The altimeter is included to obtain more accurate determinations of the change in altitude of the user than can be achieved by* ***processing GPS data*** *alone in the SPC, (column 9, lines 1-33).*

Regarding claim 21, Mault et al. in view of Seiple et al. teaches the first processor (28) is configured to calculate at least one additional piece of sports activity information based on the measured sports activity information; and the transmitter (26) is configured to transmit the calculated sports activity information via a communication link to the receiving device, ***any device with onboard computing capability*** *like cell phones, electronic books, pagers, watches, organizers,* ***wearable*** *computing devices –*

jewelry, buttons, and eyeglasses. The physiological monitor can interconnect with a PDA with a variety of plug in modules with sensors. An identification code can be used for a user, bard code scanning for interconnection and data retrieval, (column 4, lines 15-67). The device can be used to monitor tissue hydration during an exercise program or ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).* Seiple teaches a *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 22, Mault et al. in view of Seiple et al. teaches the receiving device (204) further comprises an output to which at least one feedback device (212) can be connected, ***slots 48 and 50 acts a female connectors and the memory module 46 acts as a male connector****. As will be clear to those of skill in the art, there are a* ***variety of memory modules*** *which may be used with this application. Some are typically known as flash memory cards and include CompactFlash, SmartMedia, MultiMediaCard, and MemoryStick.TM.. These memory modules may be non-volatile memory or battery-supported volatile memory and include electrical contacts designed to mate with or abut electrical contacts in the slots 48 and 50. Alternatively, inductive or other wireless interconnects between the memory module 46 and the PDA 44 or*

calorimeter 42 may be provided. Other memory module types include ***magnetic memory, optical memory, and solid state memory.*** *The memory module 46 may also include additional capabilities such as on-board processing or storage, or calibration or other data. For example, the module 46 may include application software for the PDA and/or the calorimeter, or may include software updates for either of the devices. Also, the module 46 may provide the PDA and/or calorimeter* ***with speech recognition, voice generation, recording, wireless or wired communication, or other capabilities,*** *(column 9, lines 11-32).* Mault also discloses ***feedback of the user may be stored into an exercise log*** *or for an overall fitness program, (column 12, lines 15-30).*

Regarding claim 23, Mault et al. in view of Seiple et al. teaches the at least one feedback device (212) is configured to provide at least one individual with at least one sports activity indicator based on the selected sports activity information, *monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).* Seiple et al. also teaches sport analysis feedback ***processor calculates the elapsed time*** *between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claim 24, Mault et al. in view of Seiple et al. teaches the second processor (210) is configured to calculate at least one additional piece of sports activity information based on the at least one selected sports activity information, and the at least one feedback device (212) is configured to provide the at least one individual with the calculated at least one sports activity indicator, *monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).* Seiple teaches a *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).*

Regarding claims 25, Mault et al. in view of Seiple et al. teaches the at least one feedback device (212) is configured to present the at least one sports activity indicator to the at least one individual as at least one of a graphical form and voice signals, *Monitor module may* ***display*** *instructions via* ***voice recognition/voice recording/voice commands*** *and the monitor may be* ***placed on the body anywhere to measure*** *a physiological parameter via accessory clips or other means, (column 5, lines 4-67). A* ***graphical display*** *of information can be implemented, (column 8, lines 23-31).*

Regarding claim 26, Mault et al. in view of Seiple et al. teaches the at least one feedback device (212) comprises at least one of a display, a speaker and an earpiece, *Monitor module may* ***display*** *instructions via* ***voice recognition****/voice recording/voice commands and provide* ***feedback and results****. Monitor can be used alone with all the above functionality or interconnected with other monitors for* ***additional functionality/display capability via wire or wireless communication****. The module may include data about a patient or a group of patients. The monitor may be* ***placed on the body anywhere to measure*** *a physiological parameter via accessory clips or other means, (column 5, lines 4-67). A* ***graphical display*** *of information can be implemented, (column 8, lines 23-31). Mault also discusses combinations of feed back with headphones,* ***music*** *can implemented into the pedometer, time keeping,* ***headphones,*** *and can even be attached to the crank arm of a bicycle, (column 13, 15-67).* ***Microphone, headphone jack for headphones,*** *(column 13, lines 61-67) and variety of plug-in modules, (column 4, lines 44-47/lines 60-67, column 5, lines 51-56) and (column 4, lines 20-25/lines36-37, column 5, lines 8-12 and column 5, lines 50-53, and column 7, lines 1-26, figures 11-12) Mault also teaches* ***Audio-video feedback*** *can be implemented as well, (column 18, lines 22-28). Mault also teaches that monitoring may be in real-time, use speakers, and transmitted to a physician's computer, and a website using a communication network. Audio-video can be implemented as well. (column 18, lines 22-28).*

Regarding claims 1-9, The method discussed requires all the elements claimed in claims 10-26 and are also obvious steps necessary for using the apparatus for the

desired sport feedback analysis activity correctly. Mault et al. also teaches an exercise system with a method for storing and displaying data in regards to exercise with multiple exercise sessions for each of a plurality of users and displaying the exercise parameters along with fitness tracking logs, ***physiological monitor modules/fitness tracking,*** (column 2, lines 52-67), *measure performance and compare to goals, and* ***user goals,*** *(column 6, 62-67, column 7, lines 1-12) and* ***multiple persons*** *are using the PDA, each may be provided with a* ***log-in identification.*** *The PDA or an accessory may provide the radiation for reflection oximetry of a skin part, (Mault et al., column 19, lines 38-42) and* ***Instructions and providing feedback data in context form based on user activity,*** *(column 4, lines 20-25/lines36-37, column 5, lines 4-12 and column 5, lines 50-53, and column 7, lines 1-26). Mault et al. also teaches* ***using fitness tracking and fitness logs*** *(column 12, lines 15-30). Mault et al. also teaches using the feedback device with sports activities, the device can be used to monitor tissue hydration during an exercise program or* ***sporting event,*** *(column 16, lines 49-67) and* ***calculations*** *of various exercise parameters,* ***fluid loss during a sporting event****, glucose level calculations, (column 12, lines 1-30, column 16, lines 50-67, column 20, lines 55-67).*

But fails to teach the methodology of selecting the sport in question for feedback data information and measuring altitude.

Mault et al. does teach using the device with sports, keeping fitness logs/tracking, and teaches any embodiment can be used with the other *any of the alternatives discussed with respect to any of the embodiments of the present invention may be used with any other embodiments, as appropriate, (column 24, lines 53-67).*

Mault et al. also teaches ***measuring*** *calorie/metabolic rate, EKG, heart sound, exercise (pedometers), body fat devices, heart rate, body temperature, spiro meters, blood pressure, blood oxygenation and blood glucose, (column 2, lines 11-27).* Seiple et al. also teaches a similar feedback measurement - Sport Performance Computer with sport analysis feedback *processor calculates the elapsed time between selective points, and determines the average speed or* ***pace of the person between selective points*** *and current speed in minutes/mile, (Abstract).* Seiple et al. *teaches the selection of sports, Post event analysis software* ***specific to particular sports*** *could be provided for use with this embodiment, (column 10, lines 1-13).* Seiple et al. also teaches a barometer that could add additional measurements not taught in Mault et al., *the SPC includes an atmospheric pressure sensor, which may also be referred to as a* ***barometer or altimeter.*** *The altimeter is included to obtain more accurate determinations of the change in altitude of the user than can be achieved by* ***processing GPS data*** *alone in the SPC, (column 9, lines 1-33).*

Thus, it would have been obvious for an exercise artisan to add the sport selection methodology and altitude measurement in to Mault et al.'s, as taught by Seiple et al., fitness/sport tracking monitoring device for a more comprehensive and interactive sport feedback device. Further, each of the prior arts discussed have a ***microprocessor capable of meeting these limitations discussed and also teach other overlapping similar feedback analysis methodologies***. Also, the market place reflects the reality that feedback wireless systems are common place and are being

implemented into exercise equipment and sport activities both internally and externally with sensors and detectors for various interactive training/feedback regimens.

Further, It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure, *Ex parte Pfeiffer, 1962 C.D. 408 (1961).* Thus, the methods discussed with the apparatus would be obvious to the exercise artisan in order to use the machine in the proper manner for the desired exercise and/or therapy. Also, in order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of functional language, *In re Fuller, 1929 C.D. 172; 388 O.G. 279.*

Response to Arguments

1. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection based on newly cited art. Applicant is further urged to review the secondary references disclosed in the office action as well.

Further, it would have been obvious for an exercise artisan to add the different types or selection of sport or sports activities into the fitness journals or sport analysis of workout sessions taught by Mault et al for a more comprehensive exercise feedback data system. Mault alone has a microprocessor capable of being programmed to meet the limitation and Seiple was brought in as a teaching of the specific sport in question to as a programmable implementation. The methodologies of Mault et al. discuses similar methods of the applicant and they could also be modified as supplemental or additional instructions and along with the feedback data Mault et al. provides. Also, Both of these

devices ***could be connected together to form a network system*** exercise/sport feedback system and/or entertainment system. Both prior arts could even include further training in regards to repetition, goal setting/power value, and automatically determine performance data based on a target power value, performance (repetitions performed) and/or modifying routine based on data/repetitions performed. ***Both devices alone*** are capable of storing data, monitoring exercise via sensors, transferring the data to other electronic devices and are programmable to implement a variety of desired feedback sport regimens an exercise artisan could incorporate. Further, Mault et al. already teaches the portable training device is capable of various performance tracking, ***measure these parameters at appropriate times,*** *and determine how the person's* ***performance compares to their goals*** *(column 6, lines 62-67, column 7, lines 1-12) and* each of the prior arts discussed have a ***microprocessor capable of meeting/being programmed with the limitations discussed and also already teach other overlapping similar features of feedback analysis***. The teachings of the limitations not addressed or taught by Mault et al. is in retrospect moot in the fact that each alone is programmable to meet these limitations. However, their teachings demonstrate not only the programming capability but the obvious modification an exercise artisan could perform ***to have a more comprehensive and interactive exercise feedback system***. Also, the market place reflects the reality that programmable feedback wireless systems are common place and are being implemented into exercise equipment both internally and externally with sensors and detectors. Hence, all of the parts and technique of using them are known in the market

place/exercise arena, and the only difference is the combination of the "old elements/common feedback data" into a single automated personal exercise regimen or a personal digital device. Therefore, it would have been obvious to the exercise artisan to implement/modify or use any of the common portable computing devices capabilities of PDA's, cell phones, and etc. in order to have a more comprehensive feedback data analysis exercise system/device and/or feedback

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Monitoring devices* - **Dickinson (US 6675041 B2), Astilean (US 20060183603 A1),** *Statistical display* - **Karkanen; Kip M. (US 5839901 A),** ***Alessandri; Nerio (US 5931763 A) and (US 5931763 A),*** *Portable memory customized training program for user of plural units of exercise apparatus*

Kawanishi et al. (US 7383082 B2) - *statistical computing formulas*

(US 6793607 B2) – *workout assistant*

Goldman (US 5449002 A) – *Capacitive biofeedback sensor with resilient polyurethane dielectric for rehabilitation*

Yeo et al. (US 20050124463 A1) – *bio-signal device communication measuring*

Anjanappa et al. (US 5583403 A) - *Method of using and apparatus for use with exercise machines to achieve programmable variable resistance*

Palestrant (US 20060052727 A1) - *Activity Monitoring*

Takai et al. (US 20050233859 A1) – *shoe/foot sensor*

Oglesby et al. (US 6783482 B2) – *Exercise Control Panel*

Anderson (US 20040198555 A1) - *Health club exercise records system*

also see Amano; Kazuhiko et al. (US 5941837 A), Yang; HaoH (US 20060063644 A1), and Bartels, Dirk (US 20050209050 A1), Waterson et al. (US 6997852 B2),- continuation in part of Watterson et al. (US 7060006 B1).

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert F. Long whose telephone number is (571)270-3864. The examiner can normally be reached on 5-4-9 (7:30-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571) 272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert F Long/
Examiner, Art Unit 3764
Friday, December 05, 2008

/Fenn C Mathew/
Primary Examiner, Art Unit 3764